

ABSTRACT

A technique for quickly determining the type of liquid in a container externally regardless of the material of the container, preferably contactlessly. A halogen heater 102 and an infrared thermopile 103 are disposed outside an electrically conductive container 101 made of aluminum, for example. The surface temperature of the container 101 is measured when the halogen heater 102 is off, followed by the turning-on of the halogen heater 102 for two seconds, for example. The surface temperature of the container 101 is then measured, and a difference from the previous result of measurement is calculated. If the difference is smaller than a threshold value, the liquid in the container is determined to be a safe liquid consisting primarily of water, and a blue lamp is activated. If the difference is greater than the threshold value, the liquid in the container cannot be determined to be a safe liquid consisting primarily of water, and a red lamp is activated, indicating abnormality.